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Denali Training Fund
Quarterly Progress Report

Funds for this project are provided by the USDOL and the Denali Commission and managed, in partnership, by the Alaska Department of Labor and Workforce Development.

Name of Organization: STG, Inc.	EN 796218 File 9-222
Name of Project: Wind Turbine Electrical Training	3616-EE
Reporting Period: May 19 to June 30, 2009	
Contact Person: David Myers	
Contact Number: 907-522-9018	Email Address: dave@stgincorporated.com
Expenditures to date: $54,194.65	

Certification: I certify that the information in this report is current, correct and true and in accordance with the terms and conditions of the agreement.

Signed by: _____ Dated 7/15/09

1. In a few sentences, please describe the scope of your project:
The scope of the project is to provide mechanical and electrical technician training in areas of operation and maintenance of the Northwind 100 wind turbines, which are being installed in rural Alaskan communities.

2. Project Activities for this Reporting Period:
STG coordinated all travel arrangements (lodging, per diem, rental van expenses) for eight participants from various rural Alaskan communities to attend wind turbine training located in Barre, Vermont. The eight participants successfully attended and completed the training.

3. Scheduled Project Activities/Important Dates for next quarter: **STG does not have any schedule projects for the next quarter. The eight participants successfully attended and completed wind training program on June 16, 2009 – June 18, 2009**

4. a. How many are in your training program during this reporting period?
A total of eight trainees attended the training program.

b. How many people have been trained and/or certified to date from this grant?
Eight trainees received certificate of completion.

(Please complete form below.)

5. Please list complete the list by putting the community to which each individual trained is from, the type of training and certification, the graduation date and who will employ them upon completion of training.

Community where trainee lives	Type of Training/Service	Type of Certification to be earned/earned	Dates of training	Graduation Date	Employment commitment after training is complete
Chevak, AK	Wind Turbine	Northern Power Certificate of Completion	June 16 – June 18	June 18	Wind Tech I, Wind Tech II on an as needed basis
Mekoryuk, AK	Wind Turbine	Northern Power Certificate of Completion	June 16 – June 18	June 18	Wind Tech I, Wind Tech II on an as needed basis
Bethel, AK	Wind Turbine	Northern Power Certificate of Completion	June 16 – June 18	June 18	Wind Tech I, Wind Tech II on an as needed basis
Emmonak	Wind Turbine	Northern Power Certificate of Completion	June 16 – June 18	June 18	Wind Tech I, Wind Tech II on an as needed basis
Unalakleet	Wind Turbine	Northern Power Certificate of Completion	June 16 – June 18	June 18	Wind Tech I, Wind Tech II on an as needed basis

Please copy and use another sheet if you need more spaces.

6. Please identify any problems or changes in your training project that will affect the budget, scope or timeline of the project.

The training was completed on time and within budget.

7. How are you or will you be evaluating the individuals being trained to ensure competency, skill level and understanding? (Testing, assessment, etc)

The eight participants evaluated on attendance, participation and final exam. All eight participants successfully passed. Please see attached exam.

8. Please identify areas that we can assist you in the future.

Activity – Seek and You Will Find

Instructions:

1. Work in pairs and use the installation manual to answers the questions below.

Section 1
Indicate whether the statement is True or False.

1. The wind sensor mast is assembled and installed at the factory but the sensors, lightning rod and aircraft warning lights (if applicable) must be field installed prior to lifting of the nacelle.

   True ___ False ___

2. The center of gravity will be marked on each tower section. When unnesting with a strap of 12" width or less, it is acceptable to single point (center) pick each tower section by itself or when nested.

   True ___ False ___

3. Paint damage is of particular concern if the damage is in a corrosion-prone location (e.g. anywhere on tower exterior, nacelle exterior and base flange of tower, which may be exposed to moisture from the foundation).

   True ___ False ___

4. Foundation bolt sleeves should extend no more than 25mm (1") above the top surface of the foundation concrete. It is *not* okay for them to be flush or slightly below the concrete surface.

   True ___ False ___

5. Yaw brake installation occurs before the nacelle is lifted and attached to the top tower section.

   True ___ False ___

6. It's good practice to check and clean the tapped holes in blade roots and rotor hub using a tap (M20x2.5) prior to lifting.

   True ___ False ___

Section II
Fill in the blanks with the correct answer.

1. The tower base section shall be erected within _____ of plumb. This angle equates to a requirement that the plumb bob be within _____ of the geometric center of the tower base.
2. If the nacelle and rotor are not to be lifted within _____ hours after installation of the top tower section, the tower shall be guyed to minimize the risk of oscillations induced by vortex shedding.
3. Once the nacelle is connected to the tower and the bolts are fully torqued you record the tightened torque in the _____ checklist.

Section III
Provide a short answer for each question.

1. Explain the relationship between the tower (power) cable, the signal cable and the fiber optic cable, as shipped and installed.

2. Describe the process for getting the nacelle rigged and level prior to lifting.

3. Describe the initial positioning of the blades around the hub in preparation for rotor assembly.

4. List three tools used to pitch the blades relative to the hub.

5. Describe the tag line setup used to steady the rotor during the lift and pivot.

6. What are the internal electrical components that need to be wired by a professional technician or electrician?

Activity – Who Needs to Know?

Instructions:

1. Discuss in your table group the following questions:
    - Which members of your project team should read the entire installation manual prior to project start, and why?
    - For other team members, identify the sections of the manual you want them to be familiar with prior to project start.